



The U.S. and Global Economies

The U.S. economy is fighting its way out of a binge of market euphoria.

Through most of the 1990s, the U.S. economy expanded at an unprecedented rate.

Job creation increased, unemployment remained low, and inflation and interest rates remained in check.

Some believed that fundamental changes in the economy had made the business cycle a thing of the past, and that sustained growth would continue.

We now know that the business cycle is still very real, as the nation has once again experienced a recession.

After the stock market began dropping in April 2000, the national economy followed suit, slowing down by the end of 2000. Real gross domestic product (RGDP) declined in the first three quarters of 2001, picking up slightly at the end of the year and into 2002.

Various groups offer different projections of near term prospects for the economy. Projections by Global Insight (DRI-WEFA) predict steady growth of 3 to 4 percent in RGDP through 2004. These projections indicate that the economy should rebound and grow in the next few years. Still other predictions show that the S&P 500 has yet to lose the amount of value that it historically has dropped in previous recessions.

changes occurring in the U.S. economies growth of what is often referred to as economy.

The large stock market losses as well as other factors have caused the net worth of American households to shrink for the last two years. If the trend continues, and share prices go even lower, U.S. households may experience a further reduction in wealth. As a result, consumers may begin saving more and spending less, pushing the country back into recession.

The U.S. is still enjoying high productivity growth, largely as a result of significant investments in information technology. Because of new technologies and standards, supply chains and markets are much more interconnected. Although profits and business investment have suffered their steepest decline since the 1930s, according to *The Economist,* labor productivity should continue to improve business efficiencies and long-term growth.

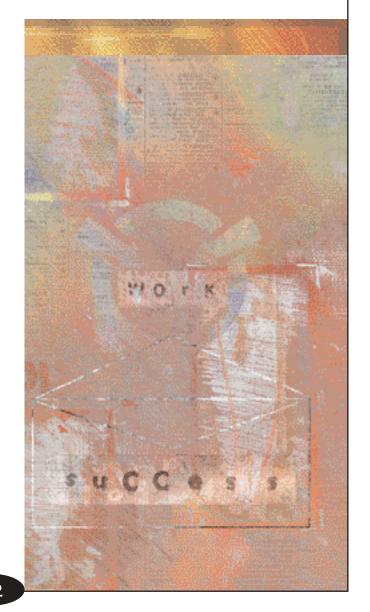
One of the most notable changes occurring in the U.S. and world economies is the growth of what is often referred to as "the knowledge economy." What does that mean? We are accustomed to an economy based on the production of commodities – wood products, grains, processed foods, steel, and so on – where a raw material is changed into a finished product. These industries continue to be important and are all being transformed by technology. However, a larger lesson can be learned from the 20th Century.

As technological changes transform industries, companies must continue to innovate to remain competitive. In an essay titled "Brainpower and the Future of Capitalism," Lester Thurow lists the 12 largest industrial companies as of January 1, 1900. Of the 12, 10 of

the companies were based on natural resources: rubber, leather, oil, gas, steel, lead, sugar, etc. Furthermore, of the 12 companies, only one is still in business today: General Electric. All of the others disappeared, the author suggests, because new technologies or processes came about to which they could not adjust.

Without knowledge – from the impact a talented workforce can have on productivity to critical investments in education and research & development – individuals, businesses, states, regions, and nations will not be able to compete in this emerging economy.

Today's knowledge economy is closely linked to the health of rapidly growing businesses and driven by technological changes that are altering the way companies and governments do business, as well as the way we live.



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Fundamental changes include:

- Higher productivity rates
- More flexible labor markets
- Better inventory management (largely as a result of information technologies); and
- A larger percentage of jobs in the service sector

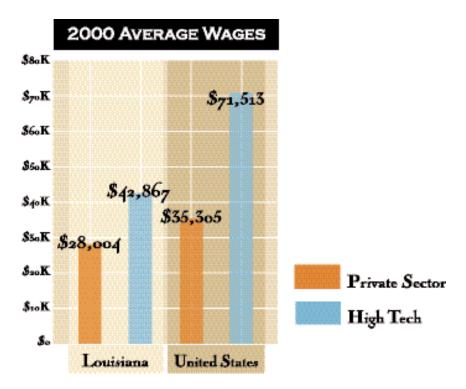
These factors have not changed as a result of the 2001 recession. In fact, they are continuing to have an impact, and some hold that the recession may have been minimized as a result of these fundamental changes.

Information and communications technologies have effectively made a small world smaller. Companies embrace these technologies to identify, market to, and manufacture for new and growing markets throughout the world. The global economy is here to stay.

The Southern Region

Over the last 20 years, the Southern region has not kept pace with the rest of the nation in many areas critical for performance in today's economy. The history of economic development in the South provides some insights. After World War II, the South embarked on a strategy to take advantage of the low cost of its land and labor, enticing manufacturers to move South. This strategy was very successful, resulting in many new, relatively good jobs for citizens, and the South's transformation from an economy based on agriculture to manufacturing. These jobs led to increased wealth and incomes in the region.

Although this strategy was beneficial, most of the companies that moved manufacturing plants to the South maintained their headquarters, research units, and highest paid employees in other parts of the country or world. As a result. much of the wealth generated by those manufacturing facilities ultimately ended up outside the South.



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Source: American Electronics Association, Cyberstates 2002.

In the early 1980s, a few Southern states began to recognize the need to build their economies from within, as it became increasingly clear that companies looking for low production costs could benefit tremendously from a move offshore. For a variety of financial, political, and social reasons, some states began sustained investments in key areas such as K-12 education, higher education, and research and development that are now showing results. It is states such as North Carolina and Georgia that have taken the lead in the South in participation in the knowledge economy. Clearly, all Southern states now understand the importance of these types of investments, but some have had the financial ability and political will to make and maintain these investments more than others.

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Louisiana's Economy

Historically, Louisiana's economy has revolved around its wealth of natural resources, focusing on oil and gas, agriculture, forestry, and fisheries. Like other Southern states, our economic development efforts focused on natural resource extraction and processing and using the low cost of land and lower wage rates to attract branch manufacturing plants. These manufacturers brought relatively higher paying jobs for our citizens, including many in rural areas, leading to increases in incomes and wealth.



Louisiana's economy has been marked by periods of growth and decline largely tied to the price of oil and gas. Our oil and gas reserves have provided the base for the extraction, refining, and related petrochemical industries. Increases in oil and gas prices are accompanied by increases in extraction activities and related increases in construction, ship-building, pipeline operation, oilfield instrumentation and machinery production, and water and helicopter transportation. Growth in this arena leads to accompanying growth in trade, services, and banking as well as increased revenues for the state. When the oil prices decline over a period of time, there is a decline in all the same activities that ride the wave up. Although our economy today is not as closely tied to oil prices as it once was, there is still a strong link.

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A quick look at statistics on Louisiana's economy today indicates that manufacturing employment and payroll are still dominated by oil and gas and related industries and transportation equipment. Chemical and allied products and petroleum refining account for almost 24 percent of manufacturing employment and 35.3 percent of payroll (compared to 6.1 and 8.1 percent, respectively, for the nation as a whole). When transportation equipment (primarily shipbuilding) is included, the numbers jump to 37.7 percent and 49 percent, respectively. Payroll from mining-related activities accounts for 4.7 percent of total payroll in the state – eight times the national average.

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Petroleum products, petrochemical manufacturing, and oil and gas mining output together account for 19.4 percent of Louisiana's total gross state product (GSP). However, on the national level, the output of these three industries only accounts for 3.1 percent of gross national product (GNP). While these industries remain important Louisiana employers, these statistics point to an over reliance on their economic output, underscoring the need to further diversify our state's economy.



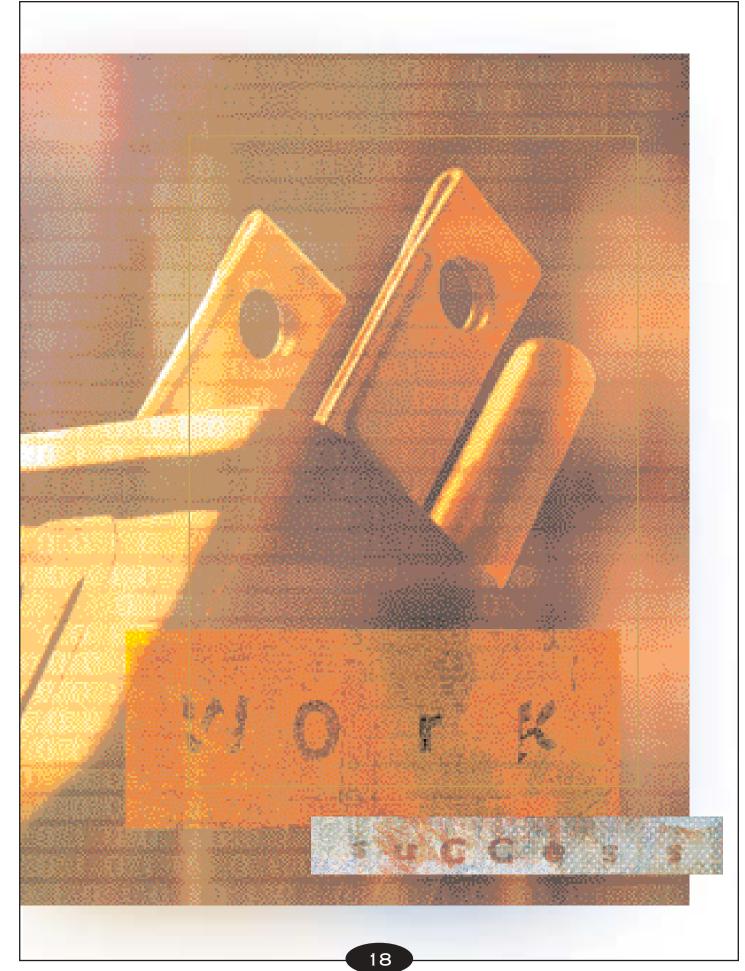
Oil and gas (exploration, production, and refining), chemicals, and related industries, are tremendously important to the state. They are technology-intensive and provide many high quality jobs. While we must work hard to retain and expand jobs in these high paying industries, their growth rates are expected to be relatively flat in the coming years. As a result, the state must look to other high growth, high wage industries to provide additional jobs for our citizens.

While manufacturing jobs are very important because they pay relatively higher wages and stimulate other economic activity, services are a much larger and faster growing segment of the economy. Services account for almost 30 percent of jobs in Louisiana, compared to almost 10 percent for manufacturing. Some of these service jobs are associated with the traditional manufacturing industries and some are high paying professional services jobs, but one third of the jobs are lower paying jobs associated with food and accommodation industries. Healthcare services account for almost half of all service jobs.

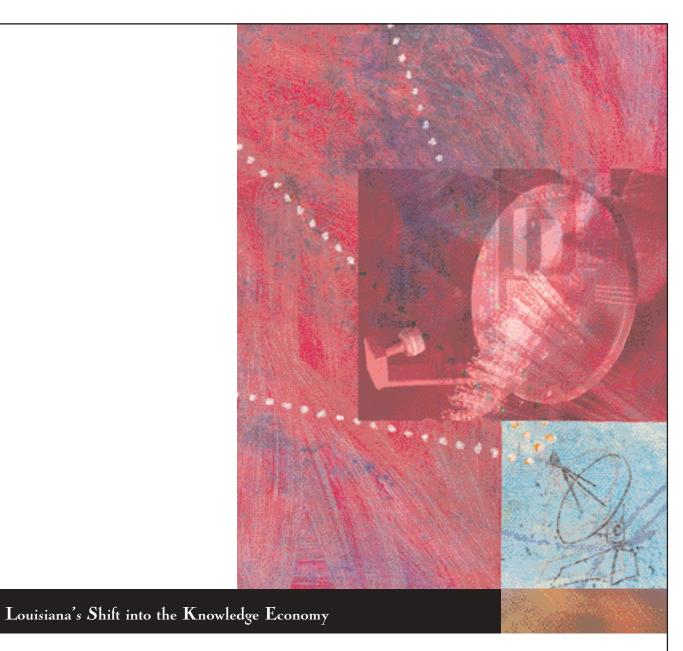
Relative to the rest of the country, income measures show that Louisiana's citizens are not generating as much income as those in other states. These lower incomes inevitably lead to a lower quality of life and standard of living. In 2001, Louisiana ranked 45th among the states with per capita personal income of \$24,535, compared to \$30,472 for the nation (U.S. Department of Commerce, Bureau of Economic Analysis). Still, Louisiana did show a relative gain in 2001, with a growth rate of 5.6 percent, compared to a substantially lower growth rate of only 2.4 percent nationally. We have been moving in the right direction, but at 81 percent of the national average, there is still a long way to go.

In 2001, 16.2 percent of our citizens were living below the poverty level. This is an unacceptably high percentage.

While many of our citizens have quality jobs, the March 2002 *Current Population Survey* reports that in 2001, 16.2 percent of our citizens were living below the poverty level. Not only is this an unacceptably high percentage of citizens living in poverty, it also means that about one-sixth of our population is contributing little to Louisiana's economy. Moving people out of poverty not only elevates their quality of life, it also reduces the state and federal economic burden for healthcare, housing, food stamps, and welfare. In order to improve the lives of all citizens, we must increase incomes for all citizens – and that requires that we move more citizens into our mainstream economy. This is a major challenge for Louisiana in the coming years.



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Changes in the national and global economies mean that the growth of high quality jobs and companies in Louisiana no longer occurs only as a result of cheap labor, the presence of natural resources, or our physical location – factors that have led to growth in the past. Because our historical economy leaves the state vulnerable to ups and downs, diversifying into rapidly growing, knowledge-based industries provides greater balance and stability in the future. A more balanced economy not only leaves Louisiana less vulnerable to downturns, it also results in a better environment for creativity and innovation, where good ideas in one sector spill over into improvements for other sectors as well.

Louisiana: Vision 2020 identifies six technology areas as critical for Louisiana's future: life sciences; micro- and nano-technologies; information technologies; environmental

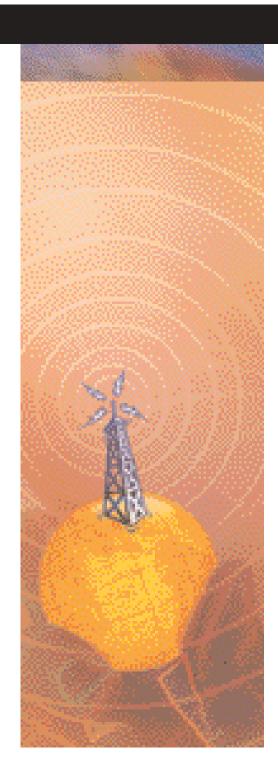
technologies; food technologies; and advanced materials. Important research and development (R&D) related to these technologies exists in Louisiana already, providing a stable base for future development. MIT economist Lester Thurow described these six sets of technologies as, "not just creating [the next] big industries: they are going to change how we do everything" (Brainpower and the Future of Capitalism).

As called for in the original **V**ision 2020 Louisiana has begun making recurring investments in a number of areas important for a diversified economy, including investments in education and training, research and infrastructure in key technology areas, and workforce development. Examples include substantial increases in funding for Pre-K-12 and postsecondary education, investments in information technology and biotechnology infrastructure as well as research at Louisiana universities, and the creation of the largest customized training program for business in the country.

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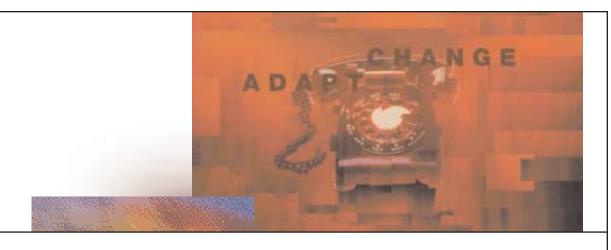


Our Place in the World



Key ingredients for a vibrant 21st Century economy in Louisiana include a skilled and educated workforce, access to technology, and access to capital. Information and communications technologies continue to revolutionize manufacturing, transportation, health care, even wholesale and retail trade. Growth of high value-added industries and their associated jobs depends on trained, innovative, entrepreneurial citizens embracing and utilizing those information and communications technologies.

Global competition forces companies to compete based on price, quality, and timely performance. The changing nature of the marketplace and the technologies making those changes possible has fundamentally altered the way we do business. These changes show up in the way workers relate to machines and products, the way products are conceived and produced, the way markets are served, and the way in which companies interact. As a report from the North Carolina Economic Development Board said, "...the terms of competition have changed for business, which in turn has changed the terms of competition for people, for communities, and for state economic development policies."



New realities affecting the economy include:

Innovation. Innovation has been defined as "the relentless, ever-changing, creative process of bringing products and services to the market" (Southern Growth Policies Board). Today's economy requires continuous innovation. Successful companies must be constantly improving production practices and products and moving into new markets. Louisiana can spur innovation by encouraging private sector and university research and ensuring that it is easy for companies to access know-how within universities.

Technology. There are no longer any low-tech industries; only low-tech companies. Companies that do not embrace technology cannot remain competitive, and they will not be successful over the long term. Technology must be integrated into every aspect of a company's business in order to compete locally, regionally, nationally, or internationally. Technology will drive the future. Louisiana's policies must make it easy for companies to access technology through various avenues such as the state's universities and cost effective broadband connectivity.

Entrepreneurship. Growing companies at home is becoming ever more important. Our economic development strategy must balance the need to recruit industry from outside the state with the need to do a better job of supporting existing industry and creating new, rapidly growing enterprises. Louisiana must focus more on providing support and an environment conducive to growing early-stage companies.

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Location factors have changed. Cheap labor, the presence of natural resources, and physical location that provides transportation advantages are much less important. For knowledge-based firms, which use innovation, quality, and increased productivity to create competitive advantage, low input costs matter much less than a good education system, well-trained workforce, and top-rated university research and development. "States that provide an environment in which firms can become more productive and innovative will outperform those that can only offer low costs" (2002 New State Economy Index, Progressive Policy Institute).

Skilled workers are the most important location factor.

Skilled workers are the most important location factor. As a result, knowledge economy companies locate where skilled workers are located. Because these skilled workers now demand a high quality of life, states must focus attention on ensuring that they are attractive to these skilled workers.

The types of workers companies need are changing. The demand for managerial, production, and low-skilled laborers is decreasing while the demand for skilled technicians, designers, and high level professional services is increasing. Louisiana must continue to sharpen its focus on providing training and re-training for today's jobs as well as those of the emerging, knowledge-based economy.

A changing base economy. The number of manufacturing jobs as a percentage of total employment is decreasing, as services and information technology and telecommunications companies account for an increasing number of jobs. While manufacturing jobs are desirable because they generally bring in more money from outside the region than other jobs, Louisiana must also look to other growing sectors of the economy to increase the number of quality jobs.



There are a number of things state government can do to have an effect on essential requirements for businesses to be competitive in today's world. Areas where the state can have an impact include education and training, physical infrastructure, the environment, capital, and access to technology. The $L_{ouisiana}$: $V_{ision\ 2020}$ objectives, discussed near the end of this report, represent the central policy implications of this document. Today's businesses need:

Educated workers willing and able to learn new skills and adapt to new work practices;

A forward-looking information technology infrastructure in place;

Sound, well-maintained physical infrastructure, including transportation, power, water, sewer;

A progressive, competitive business climate;

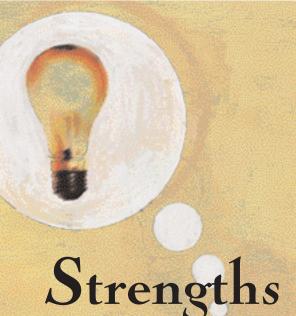
Reasonable, predictable, and stable environmental and tax laws;

Access to services including information technology, financial, and other business services;

Risk capital and debt capital managed by people who understand today's world, including international finance; and

Access to technology and know-how for those small- and medium-sized companies without the critical mass to develop technologies on their own.

Louisiana's Strengths, Weaknesses, Opportunities, and



Threats

Louisiana's strengths, weaknesses, opportunities, and threats relative to the international, national, and regional economic environment are numerous.

A cadre of knowledgeable, dedicated and thoughtful people in government, academia and the private sector who are capable of reaching consensus on a vision of the state's future and leading its people toward it.

A diverse population with entrepreneurial capabilities across a broad spectrum of competencies who are willing to work and, if necessary, sacrifice for a better future for themselves and their children.

An excellent centralized geographic location relative to both domestic and foreign markets.

Cultural, historical, and recreational resources that offer opportunities to greatly expand tourism.

An abundance of natural resources including rich farmlands, productive forests, diverse wildlife, navigable waterways, and nearby reserves of fossil fuel.

Strengths

Strong economic base industries including agriculture; aquaculture; fossil fuel exploration, mining and refining; bulk and specialty chemical manufacturing; marine engineering and construction; environmental engineering and remediation services; and medical services.

A K-12 accountability system that has been recognized nationally as outstanding and rigorous and is raising student achievement levels.

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A recently unified system coordinating Louisiana's community and technical colleges that supports the state's technical workforce needs and fills the educational gap between high schools and the state university systems.

Four-year university systems unified by a Board of Regents and its 5-year master plan to raise academic standards, increase efficiency, and help meet the state's and its economic development needs.

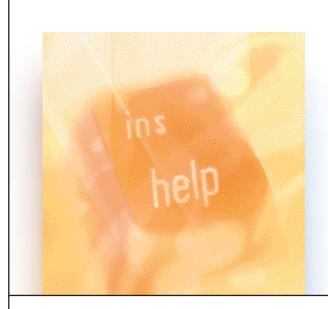
A well-funded workforce training system customized to the needs of business.

Prioritization of spending by state government. According to a 2001 study by Louisiana Association of Business and Industry (LABI), the State of Louisiana has implemented 70 percent of the Select Committee on Revenues and Expenditures' (SECURE) recommendations, resulting in an estimated savings of \$2.1 billion.

Improved fiscal performance of state government, earning a ranking of 18th from Governing magazine in 2001 (up from 44th in 1995).

An industrial base that is already technology-intensive and provides a large number of high quality manufacturing jobs for the state.

A growing technology base in areas such as biomedicine; micro- and nano-manufacturing; integrated information management and control engineering; advanced materials; environmental characterization, containment and remediation; and food production and safety. These technologies are the result of and are supported by the expertise of existing industry and the state's post-secondary educational and research institutions.



Weaknesses

A high poverty rate, with large numbers of citizens who are not benefiting sufficiently from or contributing sufficiently to Louisiana's economy.

An image internally and externally that portrays the state as backwards, politically corrupt, accepting of mediocrity, and a 20th Century economy hold-out.

A problem of net out-migration caused by too many Louisianans leaving to pursue opportunities in high growth regions outside of Louisiana and a corresponding lack of in-migration of individuals drawn to jobs in Louisiana.

The state's poor rankings in adult literacy, high school drop-outs, teen pregnancies, violent crime, and drug abuse.

A system of public education that has not imparted to its students the skills and training necessary for many to qualify for or retain advanced, technology-based jobs in a globally competitive job market.

A 16 year experiment with "temporary" revenues that, while greatly fixed by the recent sales tax/income tax swap, leaves a perceived legacy of instability in the delivery of state services.

Inadequate sources of seed and risk-oriented venture capital being invested in indigenous

Constitutionally mandated dedication of funds that limits the discretion of government to

The lingering perception that Louisiana remains a "Banana Republic" with self-serving

socioeconomic reforms that will facilitate broad-based economic growth and prosperity.

governmental leaders who lack the political will to enact and sustain fiscal and

entrepreneurial ventures.

Lack of cohesive angel investor networks.

enact and sustain fiscal and socioeconomic reforms.

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Momentum toward improving education and workforce training. The state has begun to increase coordination and funding, successfully using rewards and penalties to encourage schools to improve.

Momentum toward improving the infrastructure for multiple modes of transportation. New strategies and funding priorities are improving the infrastructure for all means of transportation.

Targeted investments and policies designed to foster strategic growth in existing and emerging industries.

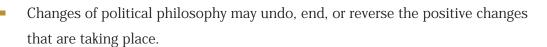
New state and regional cluster-based economic development efforts that are already having a positive impact.

Examples of thriving economies in other regions that serve as examples of the higher standard of living made possible by investments in the ingredients necessary to be successful in the emerging, knowledge-based economy.

The strong entrepreneurial spirit that has manifested itself largely in Louisiana's traditional industries may be redirected into new opportunities as Louisiana moves to strengthen its workforce and diversify its economy.

Greater confidence in the integrity of public officials than in past years.

Threats:



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Parochial politics may block the needed investments in our future.

A tradition of opposition to change. A new Louisiana requires the active engagement of every citizen.

Unwillingness to make investments that won't show near-term payoffs. The most important investments we can make will often have paybacks that don't occur until after the next election cycle, thereby creating an ongoing political impediment to change.

A return to the mindset that looks at state budget allocations as expenditures rather than as investments. Over the past seven years, Louisiana's executive and legislative leaders have been committed to performance budgeting and investing in Louisiana's future. True economic development requires sustained investment in areas such as education and infrastructure that don't show near-term payoff.

The belief that the state can get something for nothing. With potentially large financial expenses looming in the future, the state must continue to make necessary investments in education and economic development from limited resources.

The high poverty rate and high (and still rising) costs of healthcare that divert scarce government resources away from other critical investments.

Citizens and leaders in rural areas may view $V_{ision\ 2020}$'s these goals as unattain able in their regions and doubt that this document relates to their concerns.

An eroding coastline that jeopardizes communities, industrial infrastructure, and natural resources which serve as essential economic assets for the state and the country.

High insurance costs that drive up the cost of doing business.